Material Safety Data Sheet

Section 1: Product Identification

Product: Hi-Kil Concentrate , EPA 2553-37

Manufacturer's Name: **Buhl Products div.**
Protexall Products Inc.
1075 N Hwy. 427
Longwood, Fl. 32750
Telephone Number: (407) 830-7775

Date: January 6, 1997

Section 2: Hazardous Ingredients/ Identity Information

Hazardous Components:	OSHA PEL	AGGIH TLV	%
Propoxur (CAS # 114-26) (<>)	0.5 mg/M3 TWA	0.5 mg/M3 TWA	19.6
Emulsifier 1 (Specific chemical identity is confidential)	N/A	N/A	3-5
Emulsifier 2 (Specific chemical identity is confidential)	N/A	N/A	3-5
Methyl n-amyl ketone (CAS # 110-43-0)	100 ppm TWA	50 ppm TWA	50-60
Cosolvent (Specific chemical identity is confidential)	N/A	N/A	10-20

This product contains a toxic chemical or chemicals (<>) subject to the reporting requirements of Section 31.3 of Title III and of 40 CFR 372. Any copies or redistribution of this MSDS must include this notice.

Section III: Physical/Chemical Characteristics

Boiling Point:	N/D
Specific Gravity (H2 O = 1):	0.915 @ 20o C.
Vapor Pressure (mm Hg):	9.7 x 10•mm Hg @ 20oC.
Melting Point/Freezing Point:	< 10o F. (May form crystals at <50o F.)
Vapor Density (Air = 1):	N/D
Evaporation Rate (Butyl Acetate + 1):	N/D
Solubility in Water:	Emulsifies
Appearance and Odor:	Clear, colorless liquid, strong solvent odor.

Section IV Fire and Explosion Hazard

Flash Point (Method Used): 109o F (seta flash)
Flammable Limits: LEL: N/D UEL: N/D
NFFA Hazard Ratings: Health: 3 Flammability: 2 Reactivity: 1
Extinguishing Media: Water, CO_2, Dry Chemical, Foam.

Special Fire Fighting Procedures: Procedures: Keep out of smoke, cool exposed containers with water spray. Fight fire from upwind position. Use self-contained breathing equipment. Contain runoff to prevent entry into sewers or waterways. Equipment or materials involved in pesticide fires may become contaminated. Propoxur may generate isocyanates upon decomposition.

Section V: Reactivity Data:

Stability:	Stable
Condition to avoid for stability:	Sustained temperatures above 100oF.
Incompatibility:	Alkaline materials and strong oxidizers.
Hazardous Decomposition byproducts:	CO,CO_2, CH_3NH_2 ,Methyl isocyanate.
Hazardous Polymerization:	Will not occur.
Conditions to avoid for Hazardous Polymerization:	None

Section VI Health Hazard Data

Routes of Exposure:

Inhalation:	Yes.
Skin:	Yes.
Ingestion:	Yes.

Health Hazards (Acute and Chronic): Acute: Inhalation, dermal absorption or ingestion of this material may result in systemic intoxication due to inhibition of the enzyme cholinesterase. The sequence of development of systemic effects varies with the route of entry, and the onset of symptoms may be delayed an hour or more. First symptoms of poisoning may be nausea, increased salivation, lacrimation, blurred vision and constricted pupils. Other symptoms of systemic poisoning include vomiting, diarrhea, abdominal cramping, dizziness and sweating. After inhalation, respiratory symptoms like tightness of chest, wheezing, and laryngeal spasms, may be pronounced at first. If the poisoning is sever, then symptoms of convulsions, low blood pressure, cardiac irregularities, loss of reflexes and coma may occur. In extreme cases, death may occur due to a combination of factors such as respiratory arrest, paralysis of respiratory muscles or intense bronchoconstriction. Complete symptomatic recovery from sublethal poisoning usually occurs within 24 hours once source of exposure is completely removed. The solvents in this product can be irritating to the skin, eyes, nose and throat. In high vapor concentrations, drowsiness can occur. Based on EPA Toxicity Category criteria, this product is moderately toxic orally and minimally toxic dermally. Animal studies have shown that this product is a sever eye irritant and can cause irreversible eye damage.

Chronic: Repeated exposure to small accounts of this material may result in unexpected cholinesterase depression causing symptoms such as malaise, weakness, and anorexia that resemble other illinesses such as influenza. Exposure to the concentrations that would not have produced symptoms in a person that was not previously exposed may produce severe symptoms of cholinesterase inhibition in a previously exposed person. High doses of propoxur induced bladder cancers when fed to rats in one study. Cancer was not induced in several other feeding studies on rats and other mammals. The implications of these studies for humans are not known. Repeated skin contact of the solvents in this product can cause drying, cracking or irritation of the skin.

Carcinogenicity:

NTP:	Not listed
LARC Monographs:	Not listed
OSHA Regulated:	Not regulated as a carcinogen.

Medical Conditions Generally Aggravated by Exposure: No specific medical conditions are known which may be aggravated by exposure to the active ingredients in this product; however, any disease, medication or prior exposure which reduces normal cholinesterase activity may increase susceptibility to the toxic effects of the active ingredients.

Emergency and First Aid Procedures: ***If swallowed***: If ingestion is suspected, call a physician or poison control center. Drink one or two glasses of water and induce vomiting by touching the back of throat with finger, or if available, by administering syrup of ipecac. If syrup of ipecac is available, administer 1 tablespoon (15 ml) of syrup of ipecac, followed by 1 to 2 glasses of water. If vomiting does not occur within 20 minutes, repeat the dose once. Do not induce vomiting or give anything by mouth to an unconscious person. ***If inhaled***: If a person is overcome by excessive breathing, give artificial respiration, preferably mouth to mouth. Get medical attention as soon as possible. ***If on skin:*** Remove contaminated clothing. Wash skin with soap and water.
Get medical attention immediately. ***If in eyes***: Hold eyelids open and flush with copious amounts amounts of water for 15 minutes. Then seek medical attention immediately. ***Note to physician***: This product contains the carbamate insecticide, propoxur, a cholinesterase inhibitor. Cholinesterase inhibition results in stimulation of the central nervous system, the parasympathetic nervous system and the somatic motor nerves. If symptoms of carbamate poisoning are present, the administration of atropine sulfate is indicated. Administer atropine sulfate in large, therapeutic doses. In mild cases, start treatment by giving 1-2 mg of atropine intravenously every 15 minutes until signs of atropinization appear (dry mouth, flushing and dilated pupils if pupils were originally pinpoint).
In severe cases, start treatment by giving 2-4 mg intravenously every 5-10 minutes until fully atropinized. Dosages for children should be appropriately reduced. Do not use oximes such as 2- PAM unless organophosphate intoxication is also suspected. Do not give morphine. Watch for pulmonary edema which may develop in serious cases of poisoning even after 24 hours. At first sign of pulmonary edema, place patient in oxygen tent and treat symptomatically.

Section VII: Precautions for Safe Handling and Use

Steps to be taken in case material is released or spilled: Isolate and keep unauthorized people away. Do not walk through spilled material. Avoid breathing vapors and skin contact. Remove sources of ignition if combustible or flammable vapors may be present and ventilate area. Wear proper protective equipment. Dike contaminated area with absorbant granules, spill control pads, or any absorbent material. Carefully sweep up absorbed spilled material. Place in a covered container for reuse or disposal. Scrub contaminated area with detergents and bleach solution to be removed and disposed and disposed. Do not allow material to enter streams. sewers, or other waterways or contact vegetation.

Waste disposal method: Follow container label instructions for disposal of wastes generated during use in compliance with the FIFRA product label. In other situations, dispose of in a RCRA hazardous waste incinerator.

Precautions for handling and storage:

Storage Temperature(min/max):	None/30 day average not to exceed 100◦F.
Shelf Life:	Not noted.
Special sensitivity:	Heat, moisture.
Handling/Storage precautions:	Store in a cool dry area designed specifically for pesticides. Do not store near any material intended for use or consumption by humans or animals.

Section VIII: Control Measures

Respirator:	Wear a respirator approved for pesticides by the National Institute for Occupational Safety and Health (NIOSH).
Ventilation:	Maintain exposure levels below the exposure limits through the use of general and local exhaust ventilation.
Skin Protection:	Avoid skin contact. Wear long sleeves and trousers. Use chemical resistant gloves, boots or shoe covers, and apron to prevent dermal exposure.
Eye Protection:	Splash proof goggles should be used to prevent liquids from getting into eyes.
Other:	Clean water should be available for washing in case of eye or skin contamination. Educate and train employees in safe use of the product. Follow all label instructions. Launder clothing separately after use. Wash thoroughly after handling and before eating or smoking.

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information herein.